

### A Review study on various *Ksharsutras*

Pooja Shrivastav<sup>1\*</sup> and Kiran Khandare<sup>2</sup>

<sup>1,2</sup>Department of Shalyatantra, Mahatma Gandhi Ayurved College Hospital & Research Centre, Salod, M.S. India

#### Abstract

Ksharsutra even though not described vividly by AcharyaSusruta, has been described and practiced in Ayurveda for Anorectal disorders and also for those conditions which demands gradual excision after Dr PJ Deshpande. Ksharsutra is distinguished as a medicated seton. Mechanical action of the threads or Seton and the chemical action of drugs coated on the thread together do the work of cutting, curetting, draining, and cleaning thus promoting healing of the wound. ApamargaKsharsutra is considered as the standard Ksharsutra although this ApamargaKsharsutra has been a landmark success but it has certain drawbacks like pain, burning sensation and itching associated with it during therapy and availability of Apamarga throughout the year, which is also difficult as Apamarga is a seasonal plant. Even Snuhiksheer, used in ApamargaKsharsutra, also creates many problems during preparation of thread. A very little amount is collected after the incision of the stem. It coagulates if not used early. In order to overcome these disadvantages of ApamargaKsharsutra several other Ksharsutra has been prepared by different research scholars using the drugs having binding property on thread, available in bulk, less irritant, having vranshodhaka and vranropaka properties. Thus, a study was attempted to review the published articles for the materials used in different Ksharsutra preparations. The method followed was Net and Book surfing for various materials with key words.

#### Keywords

*Ksharsutra, Anorectal disorders, Vranshodhaka, Vranropaka*



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## INTRODUCTION

Ksharsutra is a successful novel drug delivery system, emerging as a specialized modality of treatment in the field of surgery in Ayurved. Ksharsutra is distinguished as a medicated seton. Mechanical action of the thread or Seton and the chemical action of drugs coated on the thread together do the work of cutting, curetting, draining, and cleaning thus promoting healing of the wound. Ksharsutra even though not described vividly by Bruhatrayi but it has been described and practiced in Ayurved for Anorectal disorders and also for those conditions which demands gradual excision. Acharya Sushrut, Father of Surgery stated about Ksharsutra for the first time in his text named 'Sushrut Samhita' with its clear cut indication in Nadi Vrana, Bhagandar and Arbuda.<sup>1</sup> Although Bhrihatrayi the chief three texts of Ayurved mention the use of Ksharsutra but there is no description of their preparation properly. It was Chakrapani Datta in late eleventh century in his book Chakradatta, first mentioned the method of preparation with a clear cut indication of its use in Bhagandar and Arsha.<sup>2</sup> Later it was standardized in the department of Shalya Shalakya B.H.U Varanasi by Prof P J Deshpande his research

officer Dr S. R Gupta and his Coworkers.<sup>3</sup> Apamarga Ksharsutra is considered as the Standard Ksharsutra although this Apamarga Ksharsutra has been a landmark success but it has certain drawbacks like pain, burning sensation and itching associated to it during therapy and availability of Apamarga is also difficult throughout year as Apamarga is a seasonal plant. Even Snuhiksheera is used in Apamarga Ksharsutra also creates many problems during preparation of thread. In order to overcome these disadvantages of Apamarga Ksharsutra several other Ksharsutra as well as Ksheersutra has been prepared by different research scholars. The present review is carried out to study these different Ksharsutra compositions.

## MATERIALS AND METHODS

This study is endeavoured to check the published articles for the materials used in different Ksharsutra preparation wide in India. The method followed is Net and Book surfing for various materials with key words.

## OBSERVATIONS

Upon screening various research article on different Ksharsutras following particular were perceived.

Sr no	Kshar /Ksheer sutra	Sutra	Ingredients	Method of preparation	Research Scholar
01	Udumbar		Udumbarksheer	11 coatings of Udumbarksheer	P J Deshpande
	Ksheersutra <sup>4</sup>			were made on thread were made on thread .	M K Jalan
02	Papaya Sutra <sup>5</sup>		Papaya Fruit pulp	11 coatings of papaya fruit pulp and papain powder	S N Pathak
			Papain powder	2 coatings of papaya fruit pulp and	
			Haridra powder	Haridra powder	
03	Snuhi	Swaras	SnuhiSwaras	11 coatings of Snuhiswaras	A . K Gupta
	Ksharsutra <sup>6</sup>		ApamargaKshar	7 coatings of Snuhiswaras with	S . N Pathak
			Haridra powder	Apamargakshar	
				3 coating of Snuhiswaras with	
				Haridra powder	
04	Yavakshar Sutra <sup>7</sup>		Snuhiksheer	11 coatings of Snuhiksheer	S . N Pathak
			Yavakshar	7 coatings of Snuhiksheer with	A.Vidyarthi
			Haridra powder	Yavakshar	
				3 coating of Snuhiksheer with	
				Haridra powder	
05	Ghrutkumari		Ghrutkumari	11 coatings of Ghrutkumari pulp	K.R Sharma
	Ksharsutra <sup>8</sup>		pulp	7 coatings of Ghrutkumari pulp	P.S Reddy
			ApamargaKshar	with ApamargaKshar	
			Haridra powder	3 coating of Ghrutkumari pulp	
				with Haridra powder	
Sr no	Kshar /Ksheer sutra	Sutra	Ingredients	Method of preparation	Research Scholar
06	Aragvadhadi		Aragvadhadi	7 coatings of Aragvadhadi fruit	P.
	Ksharsutra <sup>9</sup>		fruit pulp,	pulp + Ghrut + Madhu	Hemantkumar

		Ghrut , Madhu ,	3 coatings of Aragwadhadi fruit	M.Sahu	
		Haridrachurna ,	pulp , Ghrut , Madhu + Haridra		
		Agaru	3 coating of Aragwadhadi fruit		
			pulp , Ghrut , Madhu + Agaru		
07	Kadali	Snuhi Ksheera,	11 coatings of SnuhiKsheera,	VikasYadav	
	Ksharsutra <sup>10</sup>	KadaliKshara	7 coatings of SnuhiKsheer with	PrasannaRao	
		Haridra powder	KadaliKshara	Hemantkumar	
			3 coatings of Snuhiksheer with		
			Haridra		
08	Guggul	Guggul solution	11 coatings of Guggul solution,	Praveen	
	Ksharsutra <sup>11</sup>	Apamarga	7 coatings of Guggul solution	Kumar	
		Kshar	with ApamargaKshara	M. Sahu	
		Haridra powder	3 coatings of Guggul solution		
			with Haridra		
09	Palash ksharsutra <sup>12</sup>	SnuhiKsheer	11 coatings of SnuhiKsheer	GauravParmar	
		PalashKshar	7 coatings of Snuhiksheer with	MeenaParmar	
		Haridra powder	PalashKshara		
			3 coatings of Snuhiksheer with		
			Haridra		
10	Gomutra	SnuhiKsheer	11 coatings of SnuhiKsheer	M. K Yadav	
	Ksharsutra <sup>13</sup>	Gomutrakshar	7 coatings of SnuhiKsheer	A.K Bhargav	
		Haridra powder	with Gomutrakshar		
			3 coating of SnuhiKsheer		
			with Haridra powder		
<b>Sr</b>	<b>Ksharsutra</b>	<b>/</b>	<b>Ingredients</b>	<b>Method of preparation</b>	
<b>no</b>	<b>Ksheer sutra</b>			<b>Research</b>	
				<b>Scholar</b>	
11	Modified		Arkaksheer	11 coatings of Arkaksheer	N Gupta
	Ksharsutra <sup>14</sup>		Papaya ksheer	7 coatings of Arkaksheer +	

		Tankan kshar	Papaya ksheer + Tankan Kshar	
		Yashtimadhu	3 coatings of Arkaksheer with	
		Churna	Papaya ksheer + Yashtimadhu	
			Powder	
12	Nimba	Snuhiksheer	11 coatings of SnuhiKshir	Sidhharam
	Ksharsutra <sup>15</sup>	NimbaKshar	7 coatings of Snuhiksheer and	Arawatti ,
		Haridra powder	NimbaKshar	N Rajeshwari
			3 coatings of Snuhiksheer and	S Pragya
			Haridra powder	

## DISCUSSION

After reviewing different articles and books it was found that **Udumbarksheer sutra** is having Vranshodhak and Vranropak action , it is easy to prepare , less irritant in nature but its unit cutting time was more in comparison to Standard Ksharsutra. **Papaya Sutra** is Vranropak, Papain powder (obtained by drying unripe fruit juice) used in the thread and contains strong proteolytic enzymes which leads to debridement of necrosed tissue very early after application. The only disadvantage is that its Unit cutting time is long. To overcome the problems associated with SnuhiKsheer collection SnuhiSwaras was used in the preparation of **SnuhiSwarasKsharsutra** . Its tolerance is somewhat better and scar is thin in comparison with Standard thread .Its disadvantage is that it requires more

coatings to achieve adequate thickness. In **Yavakshar sutra**, Yavakshar is used in place of ApamargaKshar which is well known for its lekhan action. It is also Shothhar and Shitviryatmak in nature. It causes less pain as compared to ApamargaKsharsutra. But Unit cutting time of Yavakshar sutra is more. In **GhrutkumariKsharsutra** pulp of Ghrutkumari was used in place of Snuhiksheer Researches suggest that Ghrutkumari possesses local anaesthetic property. It also has Shothhar and Vranropak properties but it was observed that thread appears to be beaded because sticking was not uniform so pain was noticed during application. **AragwadhadiKsharsutra**, therapy for Bhagandar has been described by many ancient authours. SushrutAcharya has also

mentioned AragwadhadiVarti in the BhagandarChikitsa. Unit cutting time is less because of which total duration of treatment is reduced, burning pain and irritation during the primary application and successive change of Sutra is quite less. **KadaliKsharaSutra** can be considered as a better alternative in place of ApamargaKshara Sutra because it has more acceptability, less irritant, easily available, causes less burning sensation and encourage healing by new granulation tissue formation but its unit cutting time is more as compared to ApamargaKshar Sutra. In **GuggulKsharsutra** Guggul solution was used in place of Snuhiksheer. Guggul has been described as PutiharaVedanasthapan, Vranshodhak and Vranropak in classic. It was observed that pain and anxiety are very less during and after application. Pus discharge and induration, were reduced in early sittings in comparison to other thread. But the only disadvantage is that due to the soapy nature of the thread, it loosens after application. In **PalashKsharsutra**, Palashkshar is used instead of ApamargaKshar It is equally good as Standard Kshar Sutra. It is observed that in the treated group of PalashKsharsutra there was a marked reduction in pain, burning sensation, inflammation and local

reaction. The only drawback was that its unit cutting time was more as compare to ApamargaKsharsutra. In **GomutraKsharsutra**, Gomutrakshara is used instead of ApamargaKshar. By the use of Gomutraksharasutra, it was observed that total duration of treatment was reduced pain, burning sensation, itching, discharge and tenderness also reduced significantly. Using **Modified Ksharsutra** in comparison to Standard Ksharsutra reduced the total duration of treatment because its Unit cutting time is less at the same time it is VranharaShothhar, Vranaropak and Dahashamak. But it is difficult to prepare it. In **NimbaKsharsutra** NimbaKshar was used instead of ApamargaKshar. Already in DhanvantariNighantu it is emphasized that Nimba has a property which does help in suppuration of immature shoth and drains the suppurated Vrana which leads to cleaning of cavity subsequently subsides the pain other than this it has Kandughna, Krumighna and Dahashmak properties .

## CONCLUSION

On the basis of the observations gained after accomplishment of the current work it can be determined that although ApamargaKsharsutra has been a landmark

success and is an established therapy but it has certain drawback in order to overcome that other Ksharsutra were made by the drugs available in bulk having Vranshodhaka, Vranropaka, less irritant, having less Unit cutting time and other good properties. During this study I came across 12 different Ksharsutra preparations and arrived to a conclusion that all Ksharsutra have a space for calibration in qualities. This novel drug delivery system needs standardization, modification and more researches.

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